7th SPACE WARNING SQUADRON

LINEAGE
7th Missile Warning Squadron constituted, 15 Mar 1979
Activated, 1 Jul 1979
Redesignated 7th Space Warning Squadron, 15 May 1992

STATIONS
Beale AFB, CA, 1 Jul 1979

ASSIGNMENTS
26th Air Division, 1 Jul 1979
Aerospace Defense Command, 1 Oct 1979
14th Air Division, 1 Dec 1979
1st Space Wing, 1 May 1983
21st Operations Group, 15 May 1992

COMMANDERS
LTC G. Russell Pulliam
LTC Keith A. Skinner
LTC M. Selva

HONORS
Service Streamers
None

Campaign Streamers
None

Armed Forces Expeditionary Streamers
None

Decorations
Air Force Outstanding Unit Awards
1 Jul 1979-30 Jun 1981
1 May 1983- 30 Apr 1984

EMBLEM
Azure a demi globe issuant from sinister base Vert gridlined Sable below a pole star in chief Or and surmounted by an owl proper perched on a lightning flash fesswise of the fourth; in dexter chief two flight symbols descending bendwise sinister Yellow each arcing a contrail bendwise to the globe Gules, all within a diminished bordure of the fourth. (Approved, 8 Jun 1995; replaced emblem approved, 13 Aug 1981)

MOTTO
EYES TO THE WEST

NICKNAME

OPERATIONS
The 7th Space Warning Squadron is primarily responsible for detecting sea-launched ballistic missiles fired from submarines in the Pacific Ocean. The squadron's mission of missile defense supports the Ground-Based Midcourse Defense element of the Ballistic Missile Defense System. This program's objective is the defense of the United States against a threat of a limited strategic ballistic missile attack. Within 60 seconds after detecting a launch, the crew on duty has to determine if the detection is valid, under investigation, or anomalous due to computer, mechanical or personnel error. After that, the crew determines the number of launched vehicles and provides impact predictions on North America. Once the information is determined, the unit passes updates to the appropriate authorities.

The squadron also helps track earth-orbiting satellites, and reports the information to the Joint Space Operations Center at Vandenberg AFB, Calif. This information is then combined with information from other sensors to form a satellite catalog. The Joint Space Operations Center uses the catalog to keep track of more than 16,000 objects in orbit. The catalog is also used to generate the United Nations Registry Report, so national and international agencies can make sure new satellites will safely launch and orbit.

The squadron’s Pave PAWS (PAVE is a US Air Force program name, while PAWS stands for the Phased Array Warning System) radar uses nearly 3,600 small active antenna elements coordinated by two computers. One computer is on-line at all times, while the second automatically takes control if the first fails. The computers control the distribution of energy to the antennas to form precise patterns, allowing the radar to detect objects moving at a very high speed since no mechanical parts limit the radar sweep. The radar can change its point of focus in milliseconds, while conventional radars may take up to a minute to mechanically swing from one area to another. The main building is shaped like a pyramid with a triangular base 105 feet on each side. The two radiating faces are tilted back 20 degrees. Pave PAWS radar beams reach outward for nearly 3,000 nautical miles in a 240-degree sweep. At its extreme range, it can detect

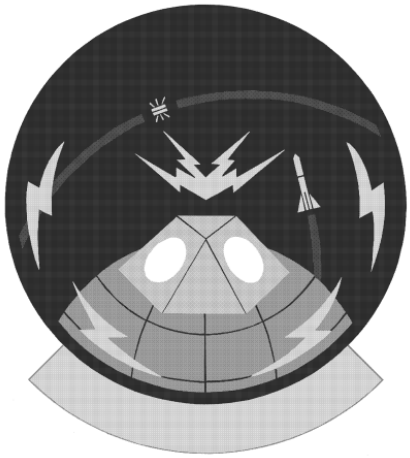
an object the size of a small car. Smaller objects can be detected at closer range.

In June of 1975, it was announced that Beale Air Force Base would be the site for a new missile warning squadron. A multi-million contract for the building, the support facilities, and the computer hardware was awarded to Raytheon Corporation. Construction began in the spring of 1977 and was completed six months ahead of schedule in November 1979.

The 7th Missile Warning Squadron was declared operational in August 1980. In addition to its missile warning mission, a new challenge presented itself in 1981 when the 7th Missile Warning Squadron was tasked to also collect data on the Space Shuttle and its deployed satellites.

July 1986 saw the arrival of the first Canadian Forces personnel. Canadians have filled three crew positions in the Missile Warning Operations Center since that time.

In 2007, 7th SWS completed the upgrade to Upgraded Early Warning Radar.



Air Force Order of Battle
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Sources
Air Force Historical Research Agency. U.S. Air Force. Maxwell AFB, AL.
The Institute of Heraldry. U.S. Army. Fort Belvoir, VA.
Air Force News. Air Force Public Affairs Agency.